

SEVEN DAYS

The news in brief

RESEARCH

Coronavirus cases

A total of 13 cases of the novel coronavirus have been confirmed globally. Seven of the patients have died, with the latest death being in Saudi Arabia, the World Health Organization said on 21 February. At least three cases have occurred in a family living in England, with two of them arising through human-to-human transmission, the European Centre for Disease Prevention and Control in Stockholm said on 19 February. One of the UK cases has died and another is seriously ill, but the third shows only mild symptoms, suggesting that other mild cases of infection could be escaping detection.

NASA programme

NASA has created a department to develop the pioneering technologies needed for current and future space missions, it announced on 21 February. The Space Technology Mission Directorate will collaborate with academia and industry — including defence companies — to pursue space exploration while boosting US economic

NUMBER CRUNCH

74.8%

The percentage of gross national expenditure on research and development spent by South Korean businesses in 2010, the latest year for which data are available. The nation continues to have higher business investment in research than China, Asia's research powerhouse.



YNA/EPA/CORBIS

Crackdown on illegal fishing launched

INTERPOL, the world's largest police organization, launched an initiative to tackle illegal fishing (pictured) at a conference in Lyons, France, on 26 February. Project Scale will establish national environmental task forces to ensure cross-border collaboration on fishing crime, conduct operations to enforce

national legislation, and develop case studies on fisheries-crime hotspots in regions such as West Africa. The initiative's fisheries-crime working group meets for the first time this week to assess what resources vulnerable member countries will need to combat illegal fishing effectively. See go.nature.com/5cl8zs for more.

competitiveness. "A robust technology-development programme is vital to reaching new heights in space and sending American astronauts to new destinations like an asteroid and Mars," said NASA administrator Charles Bolden.

Asteroid hunter

The first satellite designed to search for and keep track of asteroids and space debris was launched into orbit on 25 February. The Canadian Space Agency's Near-Earth Object Surveillance Satellite will circle the globe every 100 minutes, scanning space to pick out asteroids that may one day pose a threat to Earth. It would not have provided advance warning of the meteor that exploded over Russia earlier this month, however,

because it will focus on detecting and tracking much larger asteroids and comets, says the agency. See go.nature.com/5ec274 for more.

POLICY

Risky research

The US National Institutes of Health finalized a framework on 21 February for funding research that will ultimately allow the agency to support studies on mammalian-transmissible H5N1 avian influenza. A moratorium on the research was in place for more than a year until it was lifted in January. Also on 21 February, the US Office of Science and Technology Policy published a draft policy guiding scientists and institutions on how to monitor dual-use

research — research that could potentially be manipulated to do harm. The policy is open for public comment for 60 days. See go.nature.com/ephnei for more.

AIDS relief review

Control of the United States' 10-year programme to tackle HIV/AIDS in developing countries should be handed over to the nations in which it operates, says an advisory report released on 20 February. The President's Emergency Plan for AIDS Relief spent more than US\$38 million between 2004 and 2011, saving and improving millions of lives, finds the report from the US Institute of Medicine in Washington DC. The United States should now take a step back, providing less direct

support and more technical assistance. See go.nature.com/8kwzwo for more.

Irish science

The Irish government announced on 25 February that €300 million (US\$393 million) will be used to set up seven centres to promote collaboration between industry and researchers in areas including photonics and marine renewable energy. "This is the largest single research announcement to date in Ireland in terms of people and projects," says Mark Ferguson, director-general of Science Foundation Ireland, which will distribute the state funding. See go.nature.com/crfzv7 for more.

US open access

Research by any federal agency that spends more than US\$100 million on research and development will be made free to the public one year after publication, the US government announced on 22 February. The mandate expands a policy that until now has applied only to biomedical science. See pages 401 and 414 for more.

PEOPLE

President swap

Jean-Lou Chameau (**pictured**) is to leave his post as president of the California Institute of Technology (Caltech) in



Pasadena to head the King Abdullah University of Science and Technology (KAUST) in Thuwal, Saudi Arabia, KAUST confirmed on 19 February. Chameau, a French engineer, has helped to raise nearly US\$1 billion for Caltech since arriving at the university in 2006. At KAUST, he will replace Choon Fong Shih, an engineer who has overseen the university since it opened in 2009. See go.nature.com/kr6zv7 for more.

Nobel physicist dies

Robert Richardson, a physicist who was awarded a Nobel prize in 1996 for his work on superfluidity, has died aged 75. Richardson worked at Cornell University in Ithaca, New York; in 1971, he showed that helium-3 can flow with no friction at temperatures very close to absolute zero. The discovery led to major advances in the understanding of quantum effects in fields such as materials science and astrophysics.

BUSINESS

Drug approval

The US Food and Drug Administration approved a new drug, Kadcyla (ado-trastuzumab emtansine), to treat some advanced breast cancers, on 22 February. The drug, developed by Genentech in San Francisco, California, is an 'antibody-drug conjugate' that links the blockbuster antibody therapy Herceptin (trastuzumab) to a chemotherapy treatment. The technique aims to reduce side effects and boost efficacy by using the antibody to deliver the treatment directly to cancer cells.

AWARDS

Biology prizes

Eleven biologists received the inaugural Breakthrough Prize in Life Sciences for their work in cancer, genomics, stem cells and neurobiology on 20 February. The prizes, worth US\$3 million each, are sponsored by entrepreneurs including Russian social-media mogul Yuri Milner, and aim to raise the profile of biomedical research. In future, five prizes will be awarded annually. Last year, Milner awarded the first \$3-million Fundamental Physics Prizes for theoretical physicists. See page 402 and go.nature.com/rxb34b for more.

FUNDING

Charitable giving

Stanford University in California became the first institution to raise more than US\$1 billion in charitable contributions in a year, according to the Council for Aid to Education, a non-profit organization in New York city. Fund-raising by US colleges and universities totalled \$31 billion in 2012, up 2.3% on 2011.

FACILITIES

Nuclear leaks

The US Department of Energy has identified six leaking nuclear-waste storage tanks at the Hanford Site in Washington, a cold-war facility plagued with contamination problems. On 22 February, a week after the department confirmed a leak in one tank, Washington governor Jay Inslee (Democrat) announced that another 5 had been found among the site's 177 tanks.

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TREND WATCH

The United States planted 69.5 million hectares of genetically modified (GM) crops in 2012, just 0.7% more than the year before. But Brazil — the second-largest GM adopter after the United States — planted 21% more than in 2011 to reach 36.6 million hectares. It is leading a surge that saw developing and emerging countries overtake industrialized nations (the United States, Canada, Australia and Europe) in total hectares planted last year, according to figures released on 20 February.

BRAZIL'S GM-CROP SURGE

Planting of genetically modified (GM) crops grew by 6% in 2012 compared with 2011, reaching 170 million hectares worldwide.

